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Geochemical Classification of Groundwater System in a Rural Area of Nigeria

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Chapter

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Abstract

The characteristics of the groundwater system in Iresa-Apa, Oyo state, Nigeria, were studied using the Piper linear approach. Twenty-four water samples were randomly collected to cover the area of study. The analyzed cations from the samples are Mg^{2+} , Na^+ , K^+ , and Ca^{2+} , while the anions are CO_3^{2-} , HCO_3^- , SO_4^{2-} , and Cl^- . The three hydrochemical facies identified are Ca–Mg–Na, Ca–Mg–Na– SO_4 , and Na–K–Cl– SO_4 types. The similarities in the observed water types suggest that almost the same geochemical processes are controlling the cation-anion reaction of the groundwater system in the study area.

Keywords

Geochemical Groundwater classification Hydrochemical facies Iresa-Apa Cations and anions

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